

WHAT IS CLAIMED IS:

1. A cementitious composition comprising

i) a cationically-modified or a secondary or tertiary amino-modified cellulose

ether or

ii) a cellulose ether comprising a hydroxyethoxyl substituent alone or in combination with one or more other substituents bound to oxygen, wherein the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is either from 2.2 to 3.2 and the percentage of unsubstituted anhydroglucose units is up to 8.5 percent or the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is less than 2.2 and the percentage of unsubstituted anhydroglucose units is up to 12 percent.

2. A cementitious composition comprising

i) a cationically-modified or a secondary or tertiary amino-modified cellulose

ether or

ii) a cellulose ether comprising a hydroxyethoxyl substituent alone or in combination with one or more other substituents bound to oxygen, wherein the hydroxyethoxyl substituent has been introduced into the cellulose material in two or more stages.

3. The cementitious composition of Claim 1 or Claim 2 wherein the cellulose ether ii) is selected from the group consisting of hydroxyethyl celluloses, C₁-C₄-alkyl hydroxyethyl celluloses, hydroxy-C₃₋₄-alkyl hydroxyethyl celluloses, and carboxy-C₁-C₄-alkyl hydroxyethyl celluloses.

4. The cementitious composition of any one of Claims 1 to 3 wherein the cellulose ether comprises a hydroxyethoxyl substituent alone or in combination with one or more other substituents bound to oxygen, wherein the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is up to 3.2 and the percentage of unsubstituted anhydroglucose units is up to 8.5 percent.

5. The cementitious composition of any one of Claims 1 to 3 wherein the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ of the cellulose ether ii) is either from 2.2 to 2.6 and the percentage of unsubstituted anhydroglucose units is up to 8.5 percent or the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is from 1.0 to 2.0 and the percentage of unsubstituted anhydroglucose units is up to 11.5 percent.

6. The cementitious composition of any one of Claims 1 to 5 wherein the cellulose ether has a viscosity of from 3000 to 7500 mPa's, measured as a 1-wt.percent aqueous solution at 25°C using a Brookfield viscometer as described in ASTM D-2364.

7. The cementitious composition of any one of Claims 1 to 5 wherein the cellulose ether has a viscosity of from 1 to 5000 mPa's, measured as a 2-wt.percent aqueous solution at 25°C using a Brookfield viscometer as described in ASTM D-2364.

8. The cementitious composition of any one of Claims 1 to 7 wherein the cellulose ether i) is a cationically-modified or a secondary or tertiary amino-modified hydroxyethyl cellulose or the cellulose ether ii) is a hydroxyethyl cellulose.

9. The cementitious composition of any one of Claims 1 to 8 comprising from 0.1 to 2.5 weight percent of the cellulose ether, based on the total weight of the cementitious composition.

10. A cellulose ether comprising a hydroxyethoxyl substituent alone or in combination with one or more other substituents bound to oxygen, wherein

the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is either from 2.2 to 3.2 and the percentage of unsubstituted anhydroglucose units is up to 8.5 percent or the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is less than 2.2 and the percentage of unsubstituted anhydroglucose units is up to 12 percent and

the viscosity of the cellulose ether is from 3,000 to 10,000 mPa's, measured as a 1 weight percent aqueous solution at 25°C using a Brookfield LVT viscometer as described in ASTM method D-2364.

11. The cellulose ether of Claim 10 wherein the viscosity of the cellulose ether is from 3,000 to 7,500 mPa's.

12. A cellulose ether comprising a hydroxyethoxyl substituent alone or in combination with one or more other substituents bound to oxygen, wherein the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is either from 2.2 to 3.2 and the percentage of unsubstituted anhydroglucose units is up to 8.5 percent or the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is less than 2.2 and the percentage of unsubstituted anhydroglucose units is up to 12 percent and

the viscosity of the cellulose ether is from 1 to 5000 mPa's, measured as a 2 weight percent aqueous solution at 25°C using a Brookfield LVT viscometer as described in ASTM method D-2364.

13. The cellulose ether of Claim 11 wherein the viscosity of the cellulose ether is from 1 to 1000 mPa's.

14. The cellulose ether of any one of Claims 9 to 12 selected from the group consisting of hydroxyethyl celluloses, C₁-C₄-alkyl hydroxyethyl celluloses, hydroxy-C₃₋₄-alkyl hydroxyethyl celluloses, and carboxy-C₁-C₄-alkyl hydroxyethyl celluloses.

15. The cellulose ether of any one of Claims 10 to 14 wherein the cellulose ether comprises a hydroxyethoxyl substituent alone or in combination with one or more other substituents bound to oxygen, wherein the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is up to 3.2 and the percentage of unsubstituted anhydroglucose units is up to 8.5 percent.

16. The cellulose ether of any one of claims 10 to 14 wherein the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ of the cellulose ether ii) is either from 2.2 to 2.6 and the percentage of unsubstituted anhydroglucose units is up to 8.5 percent or the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is from 1.0 to 2.0 and the percentage of unsubstituted anhydroglucose units is up to 11.5 percent.

17. A method of controlling the curing time of a cellulose ether-comprising cementitious composition wherein

i) a cationically-modified or a secondary or tertiary amino-modified cellulose ether or

ii) a cellulose ether comprising a hydroxyethoxyl substituent alone or in combination with

5 one or more other substituents bound to oxygen, wherein the ethylene oxide molar

substitution $MS_{\text{hydroxyethoxyl}}$ is either from 2.2 to 3.2 and the unsubstituted anhydroglucose

units is up to 8.5 percent, or the ethylene oxide molar substitution $MS_{\text{hydroxyethoxyl}}$ is less than

2.2 and the percentage of unsubstituted anhydroglucose units is up to 12 percent,

is incorporated into the cementitious composition.

10

18. A method of controlling the curing time of a cellulose ether-comprising cementitious composition wherein

i) a cationically-modified or a secondary or tertiary amino-modified cellulose ether or

ii) a cellulose ether comprising a hydroxyethoxyl substituent alone or in combination with

15 one or more other substituents bound to oxygen, wherein the hydroxyethoxyl substituent has

been introduced into the cellulose material in two or more stages,

is incorporated into the cementitious composition.

19. The method of Claim 17 or 18 wherein the cellulose ether set forth in
20 any one of claims 10 to 15 is incorporated into the cementitious composition.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.